

**AIR POLLUTION CONTROL DISTRICT
SAN DIEGO COUNTY**

**RULE 67.4 - METAL CONTAINER, METAL CLOSURE AND
METAL COIL COATING OPERATIONS**

WORKSHOP REPORT

A workshop notice was mailed to each company known to be involved in Metal Container, Metal Closure and Metal Coil Coating Operations in San Diego County. Notices were also mailed to all Economic Development Corporations and Chambers of Commerce in San Diego County, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on July 21, 1994. The comments and District responses are as follows:

1. WORKSHOP COMMENT:

There are readily available end sealing compounds for food and beverage containers with negligible VOC content ('zero' VOC coatings). This should be reflected in the VOC limits in Subsection (d)(1).

DISTRICT RESPONSE:

It is the District's intent to revisit Rule 67.4 by the end of this year. At that time changes to Subsection (d)(1) will be made. The District recognizes that end sealing compounds with negligible VOC content for food and beverage containers are available and intends to revise the VOC limit for this category accordingly. The District did not make this change at this time because it would necessitate a socioeconomic impact assessment, making it difficult to complete the rule before the impending EPA deadline.

2. WRITTEN COMMENT:

Section (e) should allow a lower control efficiency from add-on control equipment provided that the resulting emissions are equivalent to what the emissions would be if compliant coatings were used.

DISTRICT RESPONSE:

The suggested alternative for add-on control equipment (i.e., reduced control efficiency but equivalent emissions) could be used through the process described in District Rule 67.1 - Alternative Emission Control Plans. Due to the time constraints for this revision to Rule 67.4, the District proposes to address this issue when Rule 67.4 is revisited.

3. EPA COMMENT:

Subsection (f)(2) allows for monthly records of materials usage. Monthly recordkeeping is acceptable only when compliant substances are used. Daily recordkeeping is necessary when non-compliant substances are used.

DISTRICT RESPONSE:

The rule has been revised to clarify that facilities using add-on control equipment shall keep daily usage records of materials not complying with the requirements of Section (d).

4. EPA COMMENT:

Subsection (e)(2)(i) should specify on what frequency the key system operating parameters need to be recorded. These operating parameters should be recorded several times a day.

DISTRICT RESPONSE:

Daily recordkeeping frequency for key system operating parameters has been specified in Subsection (f)(3). The District does not believe it is generally necessary to require several recordings per day for these parameters. For those specific cases where more frequent recording of parameters is necessary to ensure compliance, it can be required through permit conditions.

RMS:jo
08/04/94

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

Proposed amendments to Rule 67.4 are to read as follows:

**RULE 67.4. METAL CONTAINER, METAL CLOSURE AND METAL
COIL COATING OPERATIONS**

(a) APPLICABILITY

(1) This rule applies to all metal container, metal closure and metal coil coating operations in which volatile organic compounds (VOC's) are employed. ~~Operations subject to this rule and in compliance with Section (d) of this rule shall not be subject to Rules 66 and 67.3.~~

(2) Operations subject to this rule shall not be subject to Rules 66 and 67.3.

(b) RESERVED

(c) DEFINITIONS

For the purpose of this rule the following definitions shall apply:

(1) **"Closure"** means any metal component which is used to close or seal a container.

(2) **"Coating Line"** means an operation or process for applying, drying or oven baking and/or curing surface coatings, together with associated equipment including a coating applicator, flash-off area and oven.

(3) **"Coil"** means any flat metal sheets or strips that have been formed into rolls or coils for further industrial or commercial use.

(4) **"Container"** means any cans, pails or drums.

(5) **"Drum"** means any manufactured or reconditioned cylindrical metal container that is larger than 12 gallon but smaller than 110 gallon capacity.

(6) **"End Sealing Compound"** means a compound which is coated onto a container closure and which functions as a gasket when the closure is assembled onto the container.

(7) ~~**"Exempt Compound"** means a compound exempted under the definition of "Volatile Organic Compound or VOC".~~

(7) **"Exempt Compound"** means any of the following compounds or classes of compounds: 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trifluoromethane (HFC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), chlorodifluoromethane (HCFC-22), dichlorotrifluoroethane (HCFC-123), dichlorofluoroethane (HCFC-141b), 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1,2,2-tetrafluoroethane (HFC-134), chlorodifluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,1-trifluoroethane (HFC-143a), 1,1-

difluoroethane (HFC-152a), and the following four classes of perfluorocarbon (PFC) compounds:

- (i) cyclic, branched, or linear, completely fluorinated alkanes;
- (ii) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
- (iii) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
- (iv) sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(8) **"Exterior Base Coating"** means a coating applied to the exterior of a container, body, closure or flat sheet to provide a protection to the metal or to provide background for any lithographic operation.

(9) **"Exterior Body Spray"** means a coating sprayed on the exterior of container body to provide a decorative or protective finish.

~~(9)~~(10) **"Food/Beverage Container"** means a metal container in which food or beverages intended for human consumption are packaged.

~~(10)~~(11) **"Interior Base Coating"** means a coating applied to the interior of a container body or end or flat sheet to provide a protective lining between the product and the container.

~~(11)~~(12) **"Interior Body Spray"** means a coating sprayed on the interior of the container to provide a protective film between the product and the container.

~~(12)~~(13) **"Letterpress Coating"** means an acrylate-based topcoat which is used for coating letterpress printing plates during the manufacture of such plates.

~~(12)~~(14) **"Lid"** means a reusable closure.

~~(13)~~(15) **"Metal Container, Metal Closure, and Metal Coil Coating"** means any coating containing VOCs applied by spray, roller or other means to the inside and/or outside of metal containers, drums, pails, lids, closures or to the surface of flat sheets, rolls, or coil for further industrial or commercial use.

~~(14)~~(16) **"Overvarnish"** means a coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss and to protect the finish against abrasion and corrosion.

~~(15)~~(17) **"Pail"** means any manufactured or reconditioned cylindrical metal container that is from one gallon to 12 gallon capacity and constructed of 29 gauge or heavier material.

~~(16)~~(18) **"Pet Food Container"** means a metal container in which food for animal (non-human) consumption is packaged.

(17)(19) **"Three-Piece Container Side-Seam Spray"** means a coating sprayed on the exterior and/or interior of a welded, cemented or soldered seam to protect the exposed metal.

(18)(20) **"Two-Piece Container Exterior End Spray"** means a coating sprayed on the exterior end of a container to provide protection to the metal.

(19) **"Volatile Organic Compounds" or "VOC"** means any compound of carbon, which may be emitted to the atmosphere during the application of and/or subsequent drying or curing of coatings or compounds subject to this rule, except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1 trichloroethane, methylene chloride, trichlorofluoromethane (CFC 11), dichlorodifluoromethane (CFC 12), chlorodifluoromethane (CFC 22), trifluoromethane (CFC 23), trichlorotrifluoroethane (CFC 13), dichlorotetrafluoroethane (CFC 114), and chloropentafluoroethane (CFC 115). VOC limits are expressed in grams of VOC content per liter of coating minus water and exempt compound.

(21) **"Volatile Organic Compound (VOC)"** for the purpose of this rule means any volatile compound containing at least one atom of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, ammonium carbonate, metallic carbides and carbonates, and exempt compounds which may be emitted to the atmosphere during the application of and/or subsequent drying or curing of coatings or compounds subject to this rule. VOC limits are expressed in grams of VOC content per liter of coating minus water and exempt compound.

(d) REQUIREMENTS

Except as provided for in Section (e), a person shall not use or apply coatings on any coating line of the type designated below which contains VOC's in excess of the following limits at the point of application (VOC limits are expressed in grams of VOC content per liter of coating minus water and exempt compound):

(1)	Grams of VOC/ per liter of coating (minus water and exempt compounds)
<u>Metal Container or Closure Coating Lines</u>	
Sheet base coat (exterior and interior) and overvarnish	180
Two-piece container exterior base coat and overvarnish	250
Container exterior body spray and exterior closure spray	250
Three-piece container side-seam spray	660
End sealing compound	
Food/Beverage Container	440
Pet Food Container	0 20
Non-Food Container	0 20

Container interior body spray:	
Two-piece container	420
Three-piece container	310

New and reconditioned drums, pails and lids:	
Exterior spray	420
Interior spray	510

(2)	Grams of VOC/ per liter of coating (minus water and exempt compounds)
<u>Coil Coating Line</u>	
<u>Coil Coating Line</u>	200
(i) <u>Letterpress coatings</u>	200
(ii) <u>Other coil coatings</u>	200

(e) ADD-ON CONTROL DEVICE

(1) In lieu of complying with the provisions of Section (d), a person may use an air pollution control system which equipment approved in writing by the Air Pollution Control Officer provided that the VOC emissions from such operations and/or materials are reduced such that:

- (i) has been installed in accordance with an Authority to Construct; and
- (i) The control device reduces emissions from an emissions collection system by at least 95 percent by weight, and
- (ii) includes an The emission collection system which captures and transports organic gaseous emissions to an air pollution control device; and has been demonstrated to collect at least 90 percent by weight of the emissions generated by the sources of emissions.
- (iii) has a combined VOC emissions capture and control device efficiency of at least 85 percent by weight.

(2) A person subject to the requirements of this section shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance (O&M) plan for the proposed emission control device and emission collection system. Such plan shall:

- (i) ~~Identify~~ identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(i) and (e)(1)(ii) (iii) such as temperature, pressure, and/or flow rate, and.
- (ii) ~~Include~~ include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) The Operation and Maintenance plan must be submitted to the Air Pollution Control Officer and receive approval prior to operation of the air pollution control

equipment. A person subject to the requirements of this section shall implement the plan on approval of the Air Pollution Control Officer.

(f) RECORDKEEPING

(1) Any person subject to the requirements of Sections (d) or (e) of this rule shall maintain records in accordance with the following:

(1) (ii) Maintain a current list of coatings and volatile organic compounds (VOC's) in use which provides all of the coating and VOC data necessary to evaluate compliance.

~~(2) Maintain records on a daily or monthly basis showing the type and amount of each coating, solvent used as thinner or diluent and VOC containing material.~~

(3) (ii) Maintain records on a monthly basis showing the types and amounts of solvents used for surface preparation and clean-up.

(2) Any person complying with the requirements of Section (d) shall maintain daily or monthly records showing the type and amount used of each coating, solvent used as thinner or diluent, and VOC-containing material.

(3) Any person complying with the requirements of Section (d) by using control equipment pursuant to Section (e) of this rule shall:

(i) for all materials not in compliance with Section (d) of this rule, maintain daily records of the amount used of each material coating, solvent used as thinner or diluent, and VOC-containing material; and

(ii) maintain daily records sufficient to document continuous compliance with Subsection (e)(1)(iii), including records of key system operating parameters as approved in the Operation and Maintenance plan.

Such records shall be retained on site for at least three years, and shall be made available to the District upon request.

(g) VOC TEST METHODS

~~Measurement of VOC subject to Section (d)(1), (2) and (3) of this rule shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) or equivalent methods approved by the Air Pollution Control Officer. Measurement of the water content and exempt solvent content shall be conducted and reported in accordance with ASTM Test Methods for determination of water, dichloromethane, and 1,1,1-trichloroethane using gas chromatography. Calculation of the VOC content of coatings less water and exempt solvents shall be performed in accordance with ASTM Standard Practice for determination of VOC content in coatings containing water and/or exempt solvents. Measurement of VOC subject to~~

Section (e) of this rule shall be conducted and reported in accordance with the New Source Performance Standard for Magnetic Tape Coating Facilities, Subpart SSS, Rule 260.713, Section (b)(5) (40 CFR 60, Section 60.713) and with EPA Test Method 25 (40 CFR 60, Appendix A) or equivalent methods approved by the Air Pollution Control Officer.

(1) Measurements of VOC content of coatings subject to Subsections (d)(1) and (d)(2)(ii) of this rule shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) as it exists on (date of adoption), and ASTM Test Method D 4457-85 for determination of dichloromethane and 1,1,1-trichloroethane in paints and coatings by direct injection into a gas chromatograph.

(2) Measurements of VOC content of coatings subject to Subsection (d)(2)(i) of this rule shall be conducted and reported in accordance with San Diego Air Pollution Control District's Method 24D for Determination of Density, Total Volatile Matter Content, and Weight Solids of Surface Coatings Containing Photosensitive Reactive Diluents as it exists on (date of adoption).

(3) Measurements of VOC emissions subject to Section (e) of this rule shall be conducted in accordance with EPA Methods 18, and 25 or 25A (40 CFR 60, Appendix A) as they exist on (date of adoption). Test procedures shall be performed in accordance with a protocol approved by the Air Pollution Control Officer.

(4) Perfluorocarbon (PFC) compounds and other exempt compounds shall be assumed to be absent from a coating, cleaning, or surface preparation material subject to this rule unless a manufacturer of the material or a facility operator identifies the specific individual compound(s) present in the material and provides an EPA and ARB approved test method which can be used to quantify the specific compounds.